The United States has seven uniformed services:

1. Army (USA)
2. Navy (USN)
3. Air Force (USAF)
4. Marine Corps (USMC)
5. Coast Guard (USCG)
6. National Oceanic and Atmospheric Administration Commissioned Corps (NOAA Corps)
7. Public Health Service Commissioned Corps (PHSCC)

United States Department of Homeland Security

United States Department of Commerce

United States Department of Health and Human Services

National Conference for Workplace Violence Prevention & Management in Healthcare Settings

University of Cincinnati, College of Nursing

Assaults of Workers by Patients in Home Health Care

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Home Healthcare

Fastest-Growing Sector of the Healthcare Industry

Currently 1.7 million workers
2.5 million workers projected by 2018

Nurses, Nursing Assistants, Physical Therapists, etc., and . . .

Home Care Aides

2nd Fastest-Growing Occupation in the U.S.

cooking, cleaning, toileting, bathing, dressing, transferring – patient handling

Violence is the leading concern in Home Healthcare

Research (mostly) from institutional settings: Fatal and severe non-fatal violence are rare; most assaults are physically minor, but . . .

. . . The consequences are not minor:

- fear
- anxiety
- depression
- cognitive difficulties
- reduced job performance
- reduced job satisfaction
- reduced job commitment
- refusal of care
- intentions to quit
- retaliatory violence
- shortened home visits

Acknowledgments

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Previous studies of violence in Home Healthcare

- Barling et al. (2001)
  - 3.2% kicked, bitten or hit with fist
  - 3.5% pushed, grabbed, shoved, or slapped
- Geiger-Brown et al. (2007)
  - 3.3% assaulted or threatened
- Sherman et al. (2008)
  - 29.5% verbally abused or threatened
- Canton et al. (2009)
  - 58.9% verbally abused
  - 16.3% threatened
  - 3.3% physically assaulted
- Gershon et al. (2008)
  - 7.8% felt threatened by patients

Goals of the analyses:
- Quantify specifically the rate of physical assaults by patients against workers
- Explore potential risk factors for assaults by patients by examining responses to various survey items to see if they are statistically associated with being assaulted

Survey Items Examined as Potential Predictors of Assault

- 1 or more patients with dementia*
- Routinely perform 1 or more patient handling* tasks? (transfer, reposition, bathe, dress/undress, change adult diapers)
- Feel threatened by others in/around patients' homes?
- Use needles on the job?
- Worker age*, gender, race, job title, hours worked per week

*Identified as a risk factor in institutional health care settings

Survey Sample

- Convenience sampling at 11 Home Healthcare agencies in Arkansas, California, Illinois, and Oregon
- Mostly in-person group sessions
- Some mailed surveys
- Response Rate: 64%

<table>
<thead>
<tr>
<th>Job Title</th>
<th>n</th>
<th>% of Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home Care Aide</td>
<td>535</td>
<td>79</td>
</tr>
<tr>
<td>Certified Nursing Assistant</td>
<td>83</td>
<td>12</td>
</tr>
<tr>
<td>Nurse</td>
<td>59</td>
<td>9</td>
</tr>
<tr>
<td>N = 677</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Assault Survey Items

- "to the best of your memory"

- In the past 12 months, have you been hit, kicked, pinched or shoved by a home care patient?
- In the past 12 months, have you been bitten by a home care patient?
- How many times?
- Briefly note any injuries, lost work days, light-duty days

Physical Assault Rates in . . .

- This study (Galinsky et al., 2010)
  - 4.6% hit, kicked, pinched, shoved, or bitten

- Other Home Healthcare studies:
  - Barling et al. (2001)
    - 3.2% kicked, bitten or hit with fist
  - 3.5% pushed, grabbed, shoved, or slapped
- Geiger-Brown et al. (2007)
  - 3.3% assaulted or threatened
- Canton et al. (2009)
  - 3.3% physically assaulted

Higher rates possibly due to:
- larger patient populations
- higher frequency of new patients
- other factors to be discussed . . .

(® of workers)
Assaults in this study

Number of workers . . . assaulted 1 or more times 31 = 4.6%
hit, etc. 1 or more times 29
bitten 1 or more times 2
both 0
not assaulted 646

Mode Median Mean SD Min Max
# of times assaulted 2 2 7 18 1 100*

*100 assaults was atypical. The next highest # of assaults reported was 12.

Statistical Analysis to Identify Factors Predictive of Assaults
Multivariate Logistic Regression

Outcome Variable: Assaulted vs. Not Assaulted
Predictor Variables:
- 1 or more patients with dementia?
- Routinely perform 1 or more patient handling tasks?
- Feel threatened by others in/around patients’ homes?
- Use needles on the job?
- Worker age
- Worker gender
- Worker race
- Hours worked per week

Statistically Significant Predictors of Assaults

% Workers Assaulted

- Any Dementia Patients?
- Routine Patient Handling?
- Felt Threatened by Others?

OR=4.3
95% CI 1.47-12.67
OR=8.48
95% CI 1.89-37.94
OR=4.45
95% CI 1.75-11.32

Discussion of Significant Risk Factors

Patients with Dementia
Home Healthcare workers interviewed in focus groups reported feeling that dementia patients were less likely to be assaultive in their own familiar home surroundings (Fitzwater & Gates, 2000). Results of the current study suggest home care workers should not underestimate patient dementia as a risk factor.

Patient dementia may also contribute to more severe assaults and more frequent assaults . . . In homes and in healthcare facilities.

Patient Handling
. . . is also more common in healthcare facilities, which may contribute to higher assault rates in those settings.

In this study:
55% of workers handled patients
29 of the 31 assaulted workers were patient handlers
Discussion of Significant Risk Factors

Perceived Threats of Violence from Others

Dangerous neighborhoods . . .?
Culture of violence . . .?
Climate of fear . . .?

Analyses of Data from NIOSH Survey of Home Healthcare Workers

Additional Goals of the analyses:

► Determine if workers shortened home visits due to concerns for their safety (e.g., Fazzone et al., 2000; Kendra et al., 1996)
► Examine assaults and perceived threats of violence as potential predictors of shortening home visits

Shortened Visits

What about interventions?

ERGONOMICS

Design all components of the work environment . . .

Furniture           Equipment           Tools           Tasks
Hoists/Lifts            Lateral Transfer Aids         Fast-Raising Beds
Triangle Bars          Gait Belts/Slings              Slide Boards
Lift Chairs             Swivel Disks                   Grab Bars
Raised Toilets      Shower/Toilet Chairs          Portable Bathing Units

Ergonomics in Patient Care

- Eliminate or reduce forceful exertions and awkward postures
- Enhances safety for workers and patients

Assistive Devices – A few examples:
Ceiling Hoist

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Bariatric Hoist

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Patient Handling Sling

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Lateral Transfer Aide or “Slide Sheet”

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Air-assisted Lateral Transfer Aide

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Shower/Toileting Chair

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Air-assisted Vertical Lift and Lateral Transfer

Photo courtesy of Hovertech

Ergonomics Interventions for Patient Handling

Numerous studies have demonstrated positive effects:

- Hignett (2003 – cites 16 studies from 1982-2001)
- Spiegel et al. (2002)
- Evanoff et al. (2003)
- Collins et al. (2004)
- Chhokar et al. (2005)
- Engst et al. (2005)
- Fujishiro et al. (2005)
- Santaguida et al. (2005)
- Nelson et al. (2006, 2008)

Effectiveness of Ergonomics Interventions for Patient Handling:

Significant reductions (30-95%) in:
- Injuries
- Lost Work Time
- Spinal Loads
- Harmful Postures
- Perceived Exertion
- Staffing Requirements
- and
- Assaults by Patients (Collins et al., 2004): Data from 6 nursing homes showing 30% -- 72% reductions in patient-on-worker assaults

Suggestions for Further Research

All healthcare settings – hospitals, nursing homes, home healthcare . . . Evaluate the impact of ergonomic patient handling interventions on patient violence

Home healthcare . . . promote and evaluate the use of ergonomic patient handling interventions . . . for reducing overexertion in workers and violence from patients

References and Suggested Reading


